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ATHEROMATOUS CARDIO-VASCULAR DISEASE

Newer Concepts in the Diagnosis and Treatment*

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Unfortunately, arteriosclerosis has been the term applied to most of the degenerative arterial changes seen in patients who are past middle life. Clinically we recognize a variety of vascular lesions which differ etiologically, vary in their courses and prognoses, and seem to respond to different therapeutic measures. It therefore seems unwise to label the great majority of obliterative vascular diseases as arteriosclerosis. This diagnosis should only be applied to the variety described by Monkeberg. Only about 10% of our patients who present evidence of vascular disease belong to the Monkeberg group. Their arteries are of a pipe-stem type seen in senescence. The whole length of the artery is affected by degeneration and calcification mainly involving the media. The lime salts are deposited in rings and give the vessels a beady feel. Contrary to what one would suspect, only occasionally does this particular lesion cause any disability. This comparatively unimportant clinical entity overshadows the far more important and more disabling pathologic process, atheromatosis, the subject of this morning's discussion.

Atheromatous disease of the cardio-vascular system is seen so frequently in countries where food and labor saving devices are plentiful that in individuals past middle life its complete absence is the exception rather than the rule. The vascular lesion is but a link in the long chain of pathological changes seen in this disease. As a matter of fact it first makes its appearance as a metabolic disturb-

ance with manifestations of faulty digestion and often faulty assimilation. At present the disease is only recognized when the pathological process affects the blood vessel to such an extent that it interferes with normal circulatory supply to a given anatomical location. Even after the disease is well advanced these patients still masquerade under a variety of diagnoses and are seen in the offices of different specialists, depending upon the anatomic location of the vessel chiefly affected. The neurologist may see the patient because of transitory or permanent hemiplegia; the ophthalmologist because of retinal arterial thrombosis; the cardiologist as a case of anginal or congestive cardiac failure; the internist as an unexplained case of abdominal crisis or abdominal-angina; the surgeon as a case of mesenteric thrombosis; the orthopedist because of intermittent claudication or obliterative vascular disease of the extremities. A disturbance responsible for such a variety of clinical manifestations undoubtedly deserves careful thought. It would not be amiss, therefore, to retrace our steps and discuss atheromatosis, not as a disease of senescence, not as hardening of the arteries, but as a metabolic disturbance with a variety of pathologic manifestations.

In going over our case records we find that atheromatosis may be seen in individuals as young as 35. In improperly treated diabetics it may even be seen in childhood. We, as medical men who just get started at the age of 35, would not want to admit that a disease which affects a man at that stage is a disease of senescence, would we?

Arteriosclerosis is an erroneous clinical diagnosis applied to this disease. The arteries in spots become soft rather than hard. This is not of mere academic importance. Unfortunately, the term arteriosclerosis implied irreversibility and finality. This poorly chosen and falsely descriptive name may be

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partly responsible for the lack of effort in the prophylaxis and treatment of this prevalent disease. A malady responsible for most of the disability and premature deaths occurring in many individuals who are of more than average importance in their communities deserves a lot of attention.

Histo-pathologically, atheromatosis is a well recognized entity. It is thoroughly described in modern texts on pathology. It is a disease which affects the intima. Fatty droplets appear in the sub-intimal layers, in some cases in the intima itself, and may involve the media. These fatty droplets tend to coalesce. They may form minute cysts. These may exert pressure on the intima and extend into the lumen, or rupture. This often narrows the lumen or obliterates it and interferes with circulation. These soft masses are composed of cholesterol esters. Some spots may ulcerate and plaques of calcium may be deposited during the healing process. Should this become extensive as it often does very late in the disease, athero-sclerosis may be the term applied to these cases. It must be kept in mind, however, that this is a totally different process from the pipe-stem artery of Monkeberg sclerosis.

Atheromatosis may be influenced, accelerated or retarded, as a result of many factors. The nutritional factor is by far the most important one. Sedentary life plays a great part because this disease is seen in comparatively young brain workers and late among the laboring class. Heredity, diabetes, disease of the biliary tract, infections, and psychic trauma, are of etiologic importance. Careful study of patients who present evidence of atheromatosis reveals one most important common denominator — disturbance of fat metabolism. Were I to write a review on this subject rather than present an informal discussion, I would have to pay tribute to dozens of outstanding investigators for their valuable basic contributions which are responsible for focusing attention on the fact that a definite lipoid metabolic disturbance is seen in most all cases of atheromatosis.

The disease has been experimentally produced in animals fed on a high cholesterol diet. We produced this disease in a small

group of animals in a similar fashion and have also obtained suggestive evidence that by means of therapeutic agents which I shall mention later, the disease can be reversed in many instances and checked in most. Because of the great clinical significance of this conclusion, we are repeating this work under more favorable and more carefully controlled conditions.

At present our greatest difficulty is the clinical recognition of this disease before extensive damage makes the diagnosis obvious. As yet we have no reliable clinical methods to aid us in the diagnosis. We do know, however, that atheromatosis usually occurs in people past middle age who lead a sedentary life. They are great eaters. They like good food and plenty of it. These people will often sharpen an already overstimulated appetite with a cocktail. It is not uncommon to find them drowsy after meals. This they use as a good reason for lying down rather than exercising which, from a physiological point of view, adds insult to injury. They, therefore, tend to be overweight. Quantitative and qualitative dyspepsia is most frequently seen in these cases. This we believe to be due to fatty changes of the liver. The immediate and just criticism of this statement will be raised by our pathologists. They will say that these livers do not appear histo-pathologically to be fatty. While investigating this work in animals we found that livers which contained as high as 40% fat chemically above normal, failed to show it pathologically. Their peripheral vessels are found to be soft. The pulse volume of the vessels of the lower extremities vary because they often become asymmetrically affected. One dorsalis pedis or posterior tibial may be more expansile than the other. There is also a tendency for some vessels to become somewhat elongated, crowded in the sheath and assume cork-screw like appearances. The external carotid artery sometimes assumes this abnormal shape and may give the impression of an aneurysm. By stretching the vessel one can readily see that the lateral pulsations are only due to a bend in the artery. Transitory glycosuria is not uncommonly seen in people who suffer with atheromatosis. Unless the arterial supply to

the pancreas is affected, the blood sugar remains normal.

The heart in the early stages of the disease, that is in the first five or ten years of its development, is well within normal limits. Because the pathological process so frequently affects the proximal portion of the aorta, a systolic murmur is heard over it. As the disease progresses the murmur becomes more rough and is transmitted to the vessels of the neck. The second aortic sound becomes accentuated, entirely out of proportion to the height of the diastolic pressure. The blood pressure tends to fluctuate. In uncomplicated cases it is not high, although both the systolic and diastolic pressures may be slightly elevated. The vessels show a great tendency to spasticity. The mere constriction of the brachial artery by the inflated cuff will tend to influence both the systolic and diastolic blood pressure readings. (Atheromatosis is not the only pathological process in which this phenomena is seen). Retinal arterial changes in the absence of hypertension are most frequently seen in this disease. Fluoroscopic examination reveals a widened and somewhat elongated aorta and gives the appearance as if a thin veil falls from the knob of the aorta down towards the pulmonary conus. The disease is fairly free from abnormal cardio-vascular manifestations until circulatory interference develops. Atheroma of the aorta, the retinal vessels or peripheral vascular tree does not preclude their presence or absence in other parts of the body. There seems to be a selective local predisposition to this disease in many individuals.

Some of these patients are subject to muscle cramps particularly affecting the calves. It is a troublesome but fortunately transitory symptom. Two clinical types are seen, those which occur when the person is in a sitting position for any length of time or at night while apparently at absolute rest. The pain is sometimes so severe and excruciating that the patient either rubs the leg, shakes the leg, gets out of bed and stamps the foot on the floor, or tries to walk it off. Some apply heat for relief. The patient will state that the muscle gets so hard that he feels as if it is tied in a knot. This variety occurs commonly early in the disease and then for

some compensatory reason, disappears. We believe this variety to be due to either some derangement in calcium metabolism or in the synthesis of B1. Our studies so far lead us to suspect that deranged liver function plays an important role in the causation of this symptom. Both Vitamin B1 in large doses and calcium gluconate intramuscularly, or any other calcium salt intravenously, will give the patient great therapeutic relief.

The second clinical type which we see occurs on walking. This has been described in the literature as intermittent claudication. This intermittent limping is different from the previously described night cramp because it limits the individual's capacity for walking. This type too can be subdivided into two groups. One is due to angio-spasm superimposed upon a diseased artery and occurs in paroxysms. The patient may be able to walk an indefinite distance one day without pain while at other times he may commence to limp after walking one block or even less. After the cramp is over the patient may be able to walk an unlimited distance. Walking on grass, wearing soft shoes, eliminating nicotine, walking leisurely, cuts down the frequency of these paroxysms.

The second type is seen in patients who have had obliterative disease of the artery for a long time and there has been extensive muscle as well as nerve damage. Their capacity for effort is greatly limited and more or less fixed. They will say that "the most I can walk leisurely is a block or two," but at no time can this individual walk a mile without feeling it, as can on occasion the patients in the first group.

If one should apply this classification with the speculative explanations which we offer, to the heart, I believe that the various forms of angina-pectoris which we see may thusly be explained. The same thing would be true if a similar process affects the brain, or the kidneys, or any other part of the body. As a matter of fact we have been impressed with a group of our patients who apparently had spasms and later occlusions of renal vessels. The clinical picture in these cases is very suggestive of renal colic except that the pain is often associated with short periods of vasomotor shock and transitory blood pressure

drop, sometimes to an alarming degree. As a matter of fact the patient shows the typical picture of coronary thrombosis except that the pain is over the back or groin instead of the precordium. Transitory hypertension is seen after they recover from the acute attack. The cause of the hypertension most probably varies very little from the clamping of a renal artery. We should be on the lookout for a form of benign hypertension which is a sequela in some cases of atheromatosis.

TREATMENT

As soon as the disease is recognized, or if it is known that there is a family predisposition to it, a low fat diet should be insisted on, particularly low in butter fat, egg yolk, cream, etc. If there is excessive weight, that should be corrected. Too much sunning of the body should be prohibited. Nicotine should be forbidden or at least greatly curtailed. Physical activity should be encouraged. Psychic excesses should be prevented. Anything that tends to stimulate epinephrine flow should be avoided. Should any of the obliterative catastrophes bring the patient to the physician, a period of rest during the acute occlusive stage should be insisted upon, for rest is essential whether it is a cerebral thrombosis, coronary thrombosis or peripheral vascular occlusion. After the acute process is over and guided by the clinical and laboratory manifestations, attention should be directed to the underlying cause. A dietary regimen but much stricter than mentioned under the heading of prophylaxis, should be insisted upon. An absolutely fat-free diet of approximately 1,000 calories should be given. Plenty of fruits, vegetables, lean meats and fish, should be permitted. Small amounts of whiskey should be given a few times daily, preferably after meals in order not to stimulate the appetite but to hasten metabolism.

Fresh pancreatic extract with small amounts of magnesium oxide should be given after meals. This definitely aids fat metabolism. In more severe cases, insulin-free pancreatic extract should be administered intramuscularly. The best results are obtained if the pancreatic extract is prepared in such a manner that it contains adequate amounts of the epinephrine neutralizing hormone which we previously described as "Des-

ympatone," and the fat-influencing fraction, "Lipolysin"—(Wolffe) and "Lipocaine"—(Dragstedt). Recently a number of pancreatic extracts appeared on the market which are improperly standardized and do not contain both of these fractions which are essential.

The epinephrine neutralizing fraction seems to prevent angio-spasms, while the lipolytic fraction improves the fat metabolism.

Iodine should be given in any form that one deems advisable. I doubt whether it makes much difference what form of iodine is used. We have been employing an iodized mineral oil which contains $\frac{1}{2}$ grain of crystalline iodine to each ounce of mineral oil, and we advise that these patients take it for years. It definitely diminishes cholesterol deposition.

Chlorophyll is another promising and useful substance in these cases.

Further treatment must depend upon the organ mainly affected.

In conclusion may I state that the mere recognition of atheromatosis as a great problem, one which has a prophylactic phase as well as therapeutic possibilities, will aid greatly in minimizing disability and premature death.

1829 Pine Street.

DISCUSSION

DR. J. J. CASSIDY (Wilmington): We are deeply indebted to Dr. Wolffe for such a clear presentation of a subject about which we don't know much. As he pointed out, we are all inclined to classify a thing as arteriosclerosis and let it go at that. This other condition isn't a true arteriosclerosis, in that the middle coat of the artery, the media, is not involved at all, but we have this deposit, as Dr. Wolffe showed in his slide, of fatty-like substances, cholesterol, or what-not, in the intima, which, of course, is going to give, in effect, the same result as arteriosclerosis. There will be an ischemia of the part supplied by that blood vessel, and we will get what Dr. Wolffe classified as transitory spasm of those vessels, resulting in a diminished function in the organs supplied.

He gave as an etiologic factor these cramps which we so often see in the legs, these cramps in the middle aged and those above

that, the etiologic factor of angiospasm which simulates cerebral hemorrhage. He also brought out one point which I hadn't considered much before, a thing which I call a transient glycosuria, but it follows that there is a diminished blood supply to the pancreas due to that atheromatous condition of the blood vessel supplying it.

However, a thought came to me as he was speaking, and perhaps he can help me out: I wonder if that thing goes on to the point where the pancreatic function is permanently impaired, producing not a transient hyperglycosemia and glycosuria, but a permanent hyperglycosemia. In that event, would there be any use of treating, say, a diabetic not as we do now, systematically, with insulin? Of course, we have to combat that hyperglycosemia, but I wonder whether we would be getting at the etiological factor by using some of these preparations of which he spoke to relax that vessel, to make a fuller blood supply. Would it be possible to bring back the function of that pancreas and perhaps get that Utopian condition, the cure of diabetes?

I wonder if you can help me out on that, Doctor. Thank you!

DR. J. M. MESSICK (Wilmington): Dr. Wolffe heard me say, when I came in, that I came in to take a nap, but I didn't. It was a very interesting paper, particularly in relation to the increasing prevalence of cardiovascular disease and diabetes, which is certainly a very important subject.

There are lots of things which I would like to ask Dr. Wolffe. First, and this is a little off the subject of atheromatosis: In the severe hypertension in young people, for instance malignant hypertension where the difficulty is chiefly in the media hypertrophy, I wonder does he consider that there is also a metabolic disturbance of some other nature?

Second, in this atheromatous change in the internal elastic membrane, usual in these arteries, I have also had the idea that something happened to the internal elasticity, an internal rupture, with the deposit of cholesterol, which disrupts the internal membrane, or the other way around, as I had always thought.

I am sure, Dr. Wolffe, that on autopsies we have seen these very friable aortas, and we wonder why they don't rupture, but they

usually don't. I am sure I have seen them in farmers who were quite aged and who had worked very hard all their lives, and who were not fat, and yet they have these terrible aortas. I mean, must the factor of lack of work always play a part?

With regard to these people who have leg cramps at night, I should like to ask Dr. Wolffe, isn't it true that usually their blood calcium is normal and yet if you give them calcium it helps them. However, in that connection, I would like to ask for information: Has he tried A. T. 10, and if so, does it help? Thank you very much.

DR. E. R. MAYERBERG (Wilmington): I feel sort of sorry for the men who haven't gotten down yet, who missed Dr. Wolffe's paper. To my mind, it is one of the most gratifying presentations which I have heard in a number of years.

Of course, Dr. Wolffe reduced his talk to terms that anybody could understand, and he correlated not only his etiologic factors but his pathologic factors and his treatment factors in such a way as to make a continuous picture, and one that should be helpful to all. Fortunately, his presentation will be published in the *Delaware State Medical Journal* and all members will have the advantage of that.

I am glad that Dr. Wolffe brought out the eye findings in these cases. For a number of years, I have made a practice of writing to all physicians about their cases, whether they have been referred or not, because I feel that the patients should have the benefit of any knowledge which we may have concerning them. It is not infrequent to find young people and middle-aged people showing retinal changes, sometimes of a sclerotic type, which we thought, and which I have always thought up to now, were diabetic changes. I know now that they are due, in most instances, to atheromatous changes in the vessels.

I have written to physicians and I have had them call me and say, "I have checked all over this individual, and find normal pressures. The vessels are not sclerotic. There is no evidence of diabetes anywhere, and so you are all wet." Sometimes, where the physician doesn't write or call, the patient

comes in next time and says, "I told my doctor about it. He examined me and laughed about it."

So maybe I was not so far wrong after all, after hearing this explanation of Dr. Wolffe's. The ophthalmologist picks up these conditions oftentimes in a routine examination long before symptoms arise anywhere else. So when the physician hears from his ophthalmologist, I think the patient is entitled to more than a cursory examination. He should be kept under observation for a long period of time.

Frequently, in these cases, we find a normal refraction with glasses, they have normal vision, and still, at the same time, there is pathology present, not so much of a local nature but indicative of general changes in the blood vessels.

Mr. President, I have thoroughly enjoyed Dr. Wolffe's talk.

DR. W. O. LAMOTTE (Wilmington): Mr. President, since 1851, thanks to von Helmholtz who invented the ophthalmoscope, we can look directly at the arteries, the veins, and the end of the nerve, so that as Dr. Mayerberg mentioned, diseases of these systems sometimes can be discovered in the very early stages. So that we now don't have to depend so much upon the feel of the radial artery if we examine the eye grounds, where early stages of arteriosclerosis can be seen.

This is no place for me to go into the various pictures, from the early stage where the arterial walls begin a hyaline degeneration, some fibrosis, and later on, connective tissue formation.

The Doctor mentioned stepping on holy grounds. I think every internist, and especially every neurologist, should be familiar, more or less, with the eye grounds, should examine them and get more or less knowledge in that particular field. If I understood Dr. Wolffe correctly, he said that every ophthalmologist who sees what we regard as a usual retinal picture of diabetes will say, "He has diabetes." There are many able and outstanding ophthalmologists, I am sure, who would not do that, because they believe, and a great many of them maintain, that there is a question, at least in their minds, as to

whether diabetes will cause any of these pictures which are found in the retina.

We know that many of those pictures are caused by other conditions, such as arteriosclerosis, nephrosis, or perhaps a metabolic condition, secondary to diabetes.

I enjoyed listening to Dr. Wolffe's paper, and I am glad to bring out a few of these things as they appear to me.

DR. H. S. RIGGIN (Seaford): I don't want to pass up this opportunity to state my opinion of this paper. I am glad I came early. I still think his idea about warming us all up would do us all good.

I am glad he mentioned the dietetic part of treating the cardio-vascular conditions, hypertension, and so forth. I have been criticized in New York at times, in the hospital, about my method. It was just an idea of mine. Since I have been in Seaford, I have had several cases which have turned out the same way. In connection with these hypertension cases, whether they are stout people, or whether they are thin people, my method is to put them to bed, and for the first week, according to their severity, they get nothing but water and orange juice. I reduced a blood pressure the other day from 240 over 110. The patient had been on digitalis. She had no particular heart condition but it sounded like it. For one week she had nothing but water and orange juice, no medication at all. At the next blood pressure reading the blood pressure was 180 over 90, and then I did give her a little extra food. At the end of two weeks, after letting her have practically nothing to eat—she was a woman forty-five years old—her blood pressure was down to 150 over 80, and I thought that was all right.

You spoke particularly of iodine. It is my routine in these cases—sometimes you give it empirically—where you have these hypertension with cardiac symptoms along with it, to give theocalcin with potassium iodide, as a sort of routine three times a day, or every four hours. I have found, for a number of years, that that does an awful lot of good, particular attention being paid to the diet and to how much they eat.

I remember when they first started talking about vitamins. I believe at first they called

them enzymes. One night I heard a paper read in New York by Dr. John J. McNulty, who came out with the idea of dessicated ox bile and pancreatic extract. It came out in the name of Pancrobile. They kind of laughed at it a little bit in those days, but since then it has become quite the thing. We are always ready to criticize somebody who says something.

However, I want to take this opportunity to thank the doctor. For a long time I have been treating many things along that line purely, you might say, from the liver standpoint. Many times we have patients with swollen feet, swollen abdomen, and a bad heart, and digitalis won't touch it, and we give them a dose of calomel and do get the liver working.

I certainly enjoyed the paper, and I thank you very much.

DR. WOLFFE: There are a great many questions to be answered. I will try to be as brief as possible, because the next speaker may catch cold.

I want to thank Dr. Cassidy for his discussion and to say this: that I am not certain whether there may be an angiospasm of the pancreatic artery which may impair, temporarily, the pancreatic function. This is quite possible, and it may, of course, cause some transitory glycosuria. Of course, it might be speculative, but I don't see any reason in the world why atheromatosis, affecting the pancreatic artery, should not give a touch of diabetes mellitus. I don't say all cases of diabetes mellitus, but a good percentage of them, particularly those that go on for years when you treat them or don't treat them, if they stick to your diet or disregard it, must have an atheromatous type of base behind them.

For that reason, personally, I can believe and predict again—and maybe in twenty years, like the work of our great teacher, Dr. T. D. M. Cezio, it may be true; I don't know—that they are not going to use insulin alone in the treatment of diabetes, but will combine it with many of the other important hormones contained in the pancreas which are not recognized as yet, because not sufficient proof and evidence has been brought forth for their recognition. However, enough suggestive

evidence has been brought out so that we are going to use, until we know more about these diseases, a combined extract rather than one isolated hormone, because we are not that expert as yet in the use of it.

If that is the way it will be attacked, I wouldn't be surprised that many diabetics would do very well on a combination of glycine-samine and insulin, combined as one protein-free but not insulin-free extract, as we made the mistake originally. I believe there is great promise in that field.

I will try to answer just a few of Dr. Messick's very interesting statements and questions. As to the severe case of hypertension, the probable sudden type of arteriosclerosis—I see Dr. Weiss here and he is loaded with information on it—I don't consider that as a case of arteriosclerosis. I don't know if there is any individual as yet, unless Dr. Weiss will tell us something about it, who knows the treatment for this essential type of hypertension. No matter what we may do they go their course. We may retard it somewhat, but I don't know a thing about this type of hypertension. I am sorry that Dr. Messick didn't tell me something about it instead of asking me a question on it.

As far as atheromatosis being present in old arteries and old aortas, there is no doubt about it, but what I am trying to call attention to is that we are beginning to see it in the young people, too. You know that carbon has collected in your car after you have driven it 50,000 or 60,000, or 100,000 miles. Of course there is wear and tear, and there are many other reasons, metabolic disturbances, even if they work hard. But when I see the same type of change in the aorta, or some of the blood vessels of a man of thirty-five or forty, I think that that pathologic process is out of proportion, out of keeping with the age of the individual. There must be another reason for it, not senescence.

As to whether there is some injury to the blood vessel first, and the cholesterol deposit forms later, or vice versa, that is very hard to say. Some work done by Clarke and published in the A. M. A., General Pathology, is extremely interesting. He feels that there is a local sensitivity and a local hypertension which first ruptures these blood vessels. Then

the next thing takes place. I think we are just as entitled to think that since we can't prove that this vasa vasorum, which is a food filter, is first injured, there is local injury and then the deposit takes place next; but back of it all is the fact that it is still filtering a food which is not brought down to its finest quality. I say all this in theory, but it may work out.

As to the question of calcium, up until recently, one thought that only stimulation of the sympathetic nervous system, of the thoracic-lumbar sympathetics, would give us spasm. It has been proven by many investigators in the vascular field that in many of these cases autonomic imbalance, with parasympathetic stimulation, will also cause the same thing. Calcium, of course, we know will inhibit parasympathetic flow, or parasympathetic preponderance, and for that reason I believe calcium may act as a good therapeutic agent without necessarily having an awful lot of calcium. I am not sure, but I mention that as a possibility.

I also want to take this opportunity of thanking Dr. Mayerberg for his kind discussion. I do not thank a good many. I have many letters in my files, from very excellent men—and I think this will also answer some of Dr. LaMotte's very kind statements—who will say—and I have rechecked case after case—"Well, it is still a diabetic to me."

I was awfully glad to hear what Dr. LaMotte had to say. I do feel that we must learn to recognize the disease much earlier, and, if possible, focus attention, that is, the attention of the clinicians, to the disturbance that is going on. It does not necessarily say that it is all on an arterial basis, but it appears that way.

I also want to thank Dr. Riggan for his statement. There is no question about it. If you will put these people on a low caloric diet and clean out the liver and their bowels, you will do very well. I don't know whether Dr. Weiss will mention it—or perhaps he will not even agree with it, and that is why it is good to have individuals with different views—but we do have an atheromatous type of hypertension. I am sure that the day will come when we will learn to recognize a clinical picture of obliteration of a vessel to a kidney the

same as a vessel to the heart, the same as a coronary, popliteal, or cerebral obliteration.

The suggestive clinical picture is that these people don't have to be obese. They can be thin or of normal weight. They will have a severe sharp pain in the back, a typical picture of renal colic, of negative cystopyelogram, of some blood in the urine, and of a transitory rise in blood pressure, which clears up in a few days, and if this particular vessel blowout remains for some time, the tension may stay out. These cases do very well. Their hearts are small. As far as the retinal vessels are concerned, you can't see a thing—maybe a slightly increased light reflection and that is about all. Maybe in this fashion, the same as we learned to recognize acute coronary thrombosis, we will also learn to recognize renal atheromatosis, and in the course of a few years each one will pile up his experiences until we will have a composite picture of it.

I want to again take this opportunity of thanking the Society, and the discussers for their kind remarks.

THE BEHAVIOR PROBLEM IN CHILDREN

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Disturbances in the emotional mechanism of young children, unlike those of adults, present, as a rule, difficulties in interpretation and consequently in therapeutic management. One has to depend upon second-hand information because of lack of intellectual cooperation on the part of children. Mastery of adaptation to reality is totally wanting at a very young age. The exteriorization of their emotional trends in the form of defense-reaction is extremely irregular in coloring. In one's efforts to find the remedy for modification or correction of abnormal behavioristic attitudes, one is obliged to exploit the background from every angle, with especial reference to the psychological side of the problem. It is only with the aid of the latter that one can expect to attain reeducation in the field of reality of a maladjusted child.

1.—K., male, six and a half years old, tripped accidentally on a carpet and fell. On arising, he limped, but in a few days the condition cleared up. There were no unto-

ward general symptoms. Soon he began to complain of pain in the right leg and right arm (the side on which he fell), particularly of pain on the inner aspect of the right thigh. He refused to sit, stand or walk. When forced to take a few steps, he complained of very severe pain in the right knee and would fall forward. He struggled violently against being forced to walk. The parents were compelled to keep him in bed, being convinced that there was a substantial injury. A pediatrician was consulted and his diagnosis was a probable tuberculosis of the right hip. Another physician thought of acute anterior poliomyelitis in view of the existent epidemic of this disease at that time, and of the difficulty of eliciting the patellar tendon reflexes. Another physician made the diagnosis of arthritis of the right hip-joint, due to an infection from tonsils. The laboratory findings showed a slight lymphocytosis (12,200), but the spinal fluid showed one lymphocytic cell. x-ray examinations revealed no lesion whatsoever.

A neurological survey of the child's entire condition gave the following result: he was persistently in a dorsal position and any attempt to raise his head would provoke loud crying; he claimed that there was intense pain in the neck. In bending the head forward, there was considerable resistance. It was noticed that the mere placing of the examiner's hand on the head would terrify him as he feared pain in the cervical region. With great emphasis he spoke also of pain over the dorsum, in both legs, and in the abdomen and arms. It was noticeable that the severity of his suffering, as he described it, did not in the least correspond to his facial expression and behavior in the intervals between the various examinations. Being very intelligent, the child gave a vivid description of his different complaints and did it with great emphasis. He was eager to speak of it.

Proceeding further with the examination, it was observed that during his recital of suffering, a hand, placed under his head and manipulating his neck muscles or producing pressure on the dorsum and spine, failed to provoke any pain at all. With insistent persuasion, I succeeded in having him sit up, move his legs alternately, rotate,

and adduct; also I had him get out of bed, stand with his feet close together, stand on either foot, take a few steps forward, walk over a straight line from one end of the room to the other, and finally run with great haste. During these performances a conversation was held with him, joking and telling him a story about another child which made him laugh. At no time during the fifteen minutes of entertainment did the child complain of pain and since then there has been no return of pain. He recovered.

A somatic examination revealed no abnormal symptoms referable to the central or peripheral nervous system. Reflexes, sensations, pupillary reflexes and cranial nerves were all normal. The child was seen several times after the first examination. There was no return of the original complaint.

The case naturally raised the following questions:

1. Did the little boy actually have pain or not?
2. What precisely induced him to resist all manipulations?
3. Why did he persist in remaining in a dorsal position?
4. What was the mechanism by which he finally but gradually relaxed in his resistiveness while being touched or examined?
5. What particular forces were at work to accomplish a cure?

In order to answer any or all of the questions a detailed investigation of the child's personal characteristics and of environmental factors was absolutely essential. At first glance the case may appear very simple and uncomplicated. Many an individual, child or adult, may have a trauma such as this patient had, and will avoid emphasizing even some actual discomfort following it, but our patient created an issue seemingly of gross character, which necessitated hospitalization, brought worry and great concern on the parents, and, after all, proved to be ephemeral and disappeared in one seance of medical attention.

In order to grasp this remarkable phenomenon, it is necessary to take into consideration the entire background on which the boy's personality developed. It was clear that no

material lesion attacked the child, as none was found by all methods at our command. The forces which displayed abnormality in the patient's reactions were of a totally different type from a material disorder. Intellectually, in the strict sense of the word, the boy was normal. The symptoms which he exhibited, namely, the sense of having been seriously injured, and the fear of being touched or manipulated are factors of a purely emotional character. It is therefore the emotional make-up of the child that we are led to study for a proper understanding of the entire case, and only such a procedure will enable us to answer the above questions and understand the *modus operandi* of the therapeutic success.

Investigation revealed that the child is hypersensitive, self-conscious, *subject* to periods of elation and depression, apprehensive, explosive upon the least provocation, craving for recognition, and jealous of his brothers and sisters. He is very assertive and dominating; his wishes must be carried out, and if not, he sulks and complains of headache. The rapidity with which he acquires knowledge is frequently emphasized at home; he is being told that he is the brightest in the family. He takes advantage of the situation, quarrels and fights with the other children in the house, being certain that the parents will approve of him. As far as could be ascertained from questioning the parents and other relatives, the home situation played a prominent role in the accentuation, if not in the formation, of the child's characteristics. The mother is stern, likes to govern her children by fast rules, expressing very little sympathy, and is always ready to inflict bodily punishment for any infraction of her orders. As our patient was frequently in conflict with the other children and, in this manner, disturbed the orderly conduct of the home, she frequently chastised him. The child developed a dislike for his mother and feared her greatly. The father, on the contrary, was highly tender toward his children, and particularly to our patient. He showed frank discrimination, pampered the boy, and the latter developed an unusually strong attachment to his father. He took advantage of his father's sensitiveness, would continuously

complain of his mother's harshness, and of the other children's misbehavior towards him.

Should a physical discomfort affect his body, such as an occasional pain, he would immediately look for sympathy from his father, would cry and make him believe that he was very ill. The father would be alarmed, put him to bed and keep him there for days, notwithstanding the physician's advice. This unusual solicitude on the part of the father maintained and reenforced the above mentioned characteristics. When the accident described in the foregoing pages occurred, the father became unusually alarmed, called in several physicians, gave up his work and spent all his time at the bedside of his son, showed great anxiety over the latter's illness and in this manner developed in the patient a state of fear for his health which remained fixed for several weeks. The conscious behavior of the parent entered the subconscious field of the patient and developed an abnormal emotional state in the child, with anxiety and fear as the central focus. Gradually the limbs refused to move; rigidity of the neck and of the spine appeared, and thus the child became immobilized, lying on his back and avoiding moving. Later on he would not allow anyone to manipulate even a segment of a limb. He had to be fed because of fear of moving his arms. His belief in and conviction of having been attacked by a serious illness grew parallel with that of his father.

In the presence of all these facts concerning the personal characteristics of the patient and especially the attitude of the father, it was evident that a psychopathological background had developed in the psychoneurotic condition of the patient and would have maintained it as such, had not treatment interfered. The field of therapeutic action was evident and clearly outlined. The "fixation" phenomenon had to be dislodged and the child's emotional disorder (fear and anxiety) enucleated from its fixed attitude and placed at the disposal of the patient's consciousness, which then promptly incorporated it and produced the desired result. When it was proven to the child that he could walk, he continued doing so and finally became convinced of his ability to be about without

assistance. This acknowledgment of reality led to the disappearance of fear and anxiety, and peace was restored in his emotional disorder.

The hysterical disability in the motor sphere, as well as other impulsive manifestations of the child which would break out now and then, the quarrels with his sisters and brothers, and also the inner revolt against the mother's hard rules at home, are all signs of exteriorization of inner conflicts. He lived in an atmosphere irritating to his hypersensitive nature and he would find relief either in the form of explosiveness or in some physical manifestation, such as a last motor disability. The latter was a very easy escape from an intolerable situation because of his father's stimulating attitude towards him.

The case described here presents instructive problems in dealing with psychoneurotic phenomena. It demonstrates first of all the necessity of a psychological point of view in the midst of seemingly organic manifestations. One must always bear in mind that impulsiveness, explosive outbreaks, discontentment, inimical attitudes, and all the other peculiarities in a child, such as mentioned above, cannot develop and exist in a biological vacuum, but are intimately associated with and dependent upon conditions surrounding the child.

This condition may be constitutional, hereditary and environmental. Home problems, in the broadest sense of the term, play a paramount role in the emotional development of the child.

1900 Locust Street.

INSURED BRITISH WORKERS FOUND TO HAVE MANY PHYSICAL DEFECTS

The claims that compulsory health insurance in this country will result in a healthier population appear to be refuted by the large number of physical defects found in an examination of a group of English working people who are under national health insurance, *The Journal of the American Medical Association* for March 29 says in an editorial.

"An opportunity to compare the health of a sample of British workers as to physical condition and morbidity (illness) with the numerous reports of similar investigations in

the United States is afforded by an article which appears in a recent issue of the *Lancet* (a British medical publication)," *The Journal* says.

"The report covers an examination of 1,592 workers, including 1,352 men and 240 women. There was nothing amateurish or superficial about the examination. 'Many were seen twice and a few three times; some 60 were sent for a second opinion to members of the consulting staff of the local municipal hospital. The pathological and x-ray facilities of the hospital were freely used; though it was not possible to do routine radiography (x-ray photograph) of the chest or examine the cerebrospinal (brain and spinal column) fluid.' The distribution by age groups seems to have been fairly representative of a general working population, there being 290 between 17 and 29, 468 from 30 to 39, 319 from 40 to 49 and 275 from 50 to 64. Only workers actually employed were examined. Twenty employees were excluded because of absence on account of sickness. The report is detailed as to the defects discovered."

In a table containing only the main classifications of the original list *The Journal* shows the following defects found in 1,352 men: heart and blood vessels, 298; digestive tract, including dental, 1,485; lungs, 50; nervous, 18; urinary and reproductive organs, 42; chronic rheumatic, 21, occupational, 8 and miscellaneous, 836.

"Concerning the results," the editorial continues, "the examiner says:

"All the men and women examined were under national health insurance. The general standard of health cannot, therefore, be considered satisfactory. Of the 1,592 examined, 112 (7 per cent) would probably have been rejected for life insurance and might therefore be described as suffering from major disorders; many more would have been weighted. Minor disorders were legion and included bad teeth, dyspepsia, hernia, chronic bronchitis, defects of hearing and vision, anemia, varicose veins and deformed feet.

"Of the 112 men and women in whom major disorders were found, 12 were, or had recently been, under medical care at the time of the examination. Similar records showed that in the case of varicose veins, a minor disorder of the 252 men who had the condition, only 7 had ever consulted their doctors about it. For the most part both major and minor disorders were neglected or unsuspected. Inquiry did not confirm the disinclination to seek advice noted at the Peckham Health Centre, although the workers as a rule sought medical attention only for the alleviation of symptoms which were both unpleasant and disabling. Actually, 50 per cent had seen

their doctors during the preceding two years, and 22 per cent between two and five years ago. Most of the major disorders found were symptomless or symptoms which did not interfere with the daily work. The minor disorders were usually quite obvious; they were seen but not perceived. Bad teeth, as far as most of the subjects were aware, were quite natural and normal. Most of the major disorders would have benefited from medical care, if only as management. The minor disorders were largely avoidable and unnecessary; they could have been prevented, controlled or cured.

"These findings demonstrate the value of routine medical inspection or health examination of adults, such as those already taken for granted in the school population. Once organized, regular health examinations would mark a major advance in public health.

"Since this examination is based on a fair sample of the English working population, it seems to offer a challenge to those who claim that compulsory health insurance encourages preventive care, discovers disease in its early stages, assures adequate care of the insured at all times and maintains a higher physical standard for the insured than is found among the noninsured population of a like kind in the United States."

THREE QUARTERS OF A CENTURY FOR PARKE, DAVIS & COMPANY

The year 1941 marks the Diamond Anniversary of the founding of Parke, Davis & Company, a firm which had its inception in a small drug store in the city of Detroit, and which, during the past seventy-five years, has become the world's largest makers of pharmaceutical and biological products.

From the very beginning, back in 1866, Parke, Davis & Company has engaged in research work with the object of making available to pharmacists and physicians, medicinal preparations of the highest degree of accuracy.

In the early 70's, pharmaceutical progress meant the discovery of new vegetable drugs. Energetic and extensive explorations gave to the medical profession such valuable and widely used drugs as cascara and cocoa. Then, in 1879, came one of Parke-Davis's greatest contributions to pharmacy and medicine—the introduction of the first chemically standardized extract known to pharmacy. Desiccated thyroid gland, the first endocrine product supplied by the company, was intro-

duced in 1893. One year later, Parke-Davis established the first commercial biological laboratory in the United States. In 1897 came the introduction of the first physiologically assayed and standardized extracts. And throughout these early years, the fundamental Parke-Davis policy—precision in pharmaceutical manufacture—was crystallizing.

Since the turn of the century, progress of the company has continued apace. An aggressive program of research has been zealously pursued, marked by the introduction of such important medicinal products as adrenalin, ventriculin, theelin, pitocin, pitressin, mapharsen, neo-silvol, antuitrin-S, meningococcus antitoxin, dilantin sodium, and many others. Diversified research activities cover the major phases of medical treatment, including the endocrine, biological, vitamin, and chemotherapeutic, and new discoveries are carefully evaluated through the company's extensive facilities for clinical investigation.

The company's home offices and research and manufacturing laboratories in Detroit occupy six city blocks on the Detroit River front. A beautiful farm of 700 acres, located near Rochester, Michigan, about 30 miles from Detroit, is utilized for the production of antitoxins, serums and vaccines, and for the cultivation of medicinal plants. In addition to its Detroit headquarters, branches and depots are maintained in eighteen important cities throughout this country, and in eight foreign countries.

Through the use of full-pages in leading national magazines Parke, Davis & Company are carrying on an advertising program that has attracted wide attention. They make no direct attempt to sell their products to the public by means of this publicity. In a sincere effort to render a valuable service to the medical profession, they are running a striking series of messages based on the "See Your Doctor" theme, and physicians throughout the country are constantly experiencing evidences of the results of this broad educational program.

EDITORIAL

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CANCER MONTH

April, by a Special Act of Congress, is designated as National Cancer Control Month. It is ushered in each year by a proclamation by the President, which is followed by similar proclamations by Governors and Mayors. There are many societies interested in curbing disease, but the organizations fighting cancer have to deal with the public as individuals, and create a sense of personal responsibility. Cancer, like religion, cannot be regulated by law, and yet according to Surgeon-General Parran, it is the major health problem in the United States. One out of every ten persons dies of cancer.

Last year in Delaware there were about 350 cancer deaths, a rate of almost one a day. The increase may be partly accounted for by

an increase in longevity, but nevertheless it is a tragic toll, especially if half of those lives might have been saved had the patient been treated earlier. There can be no appreciable decline until every adult knows enough about this disease to be on the alert for the danger-signals, and to seek immediate treatment when they appear.

In 1913 the American Society for the Control of Cancer was organized for the purpose of educating the public by teaching simple cancer facts that the average person could understand. Too much credit cannot be given to this splendid organization for what they accomplished in spite of many obstacles. In the first place they got off to a bad start, as their initial efforts were overshadowed by the First World War. Lack of funds to organize adequately in each state was another drawback. The fact that the majority of the members were doctors had certain disadvantages to partially offset the advantage of their medical background. While eager to help save lives, many of the doctors were reticent in seeking an audience, lest their motives be misunderstood.

This is one of the many ways in which the Society's Auxiliary, the Women's Field Army, has been of great assistance. It acts as a sort of liaison officer between the medical profession and the laity. With feminine diplomacy an Army worker can say just enough about the importance of cancer control to create a desire among her friends for an authoritative medical talk, and one cancer talk frequently leads to requests for others. In 1940 there were seventy-five talks on cancer given in Delaware to audiences aggregating six thousand persons, and still more were reached by the wide distribution of literature. Fifteen thousand leaflets were distributed in schools, stores and factories.

This fall the Army carried cancer education into the schools. Permission was obtained from the Board of Education and also from individual schools. An interesting book, *Youth Looks at Cancer*, published

under the supervision of the American Society was placed in each school library. One principal was so pleased with it that he asked for twenty-five copies to be used by the class in biology. Talks on cancer were given by doctors to students in most of the high schools throughout the state. After one of these talks the school nurse reported that a number of students prevailed on their mothers to have a cancer check-up and that in one instance cancer was discovered, fortunately in an early stage.

Last year special attention was given to foreign-born groups; this year there have been fifteen meetings for colored groups, and there is an increasing demand for speakers for P.-T. A. meetings in colored schools down the state. In Dover the Vice-Commander is organizing a Field Army unit among the colored women.

Early in September the Army begins making contacts with clubs and schools to arrange for lectures before their programs are filled. The climax of their educational campaign is reached in April with a membership drive. Each state is assigned a quota of one membership fee of a dollar for every hundred persons. Thirty per cent of all monies collected is sent to the national headquarters; the remainder stays in the state and may be used on cancer projects that meet with the approval of the state and national boards.

In most states the Field Army operates under the supervision of the State Medical Society, but in Delaware it is under the direction of the state committee of the A. S. C. C. The by-laws provide that this be the case in states having an active branch of the parent society. Many divisions of the Army are sponsoring worth-while projects such as paying for the examination, and in some cases the treatment, of needy cases, providing transportation and hospital care for the indigent, paying the salary of a social worker to follow up cases, helping equip clinics, and providing a fund for rotating loans.

Delaware is unusually fortunate in having facilities for treating cancer that leave little to be desired in that line. And yet in spite of cancer education, too many cases fail to receive proper treatment in time. The

workers in the Field Army are convinced that the delay is often due to financial problems. It is true that indigent patients can receive free treatment at the clinics, but there are many border line cases, too proud to be called "indigent" or "pauper," and yet unable to lay aside anything for sudden illness, or operations. And so when the family physician advises hospital treatment they put off going until they can save enough money. Since delay may be fatal, a loan might save a life. The moral obligation to repay the loan in most cases would be met, and if not, the loss would be negligible.

A number of local physicians have endorsed this plan as an aid to cancer control. The Field Army would be glad to have the opinion of more members of the State Medical Society and welcomes any other suggestions for furthering a successful program. It also invites them to enlist in their ranks during the membership drive. Checks may be drawn to the Delaware State Committee of the A. S. C. C. and sent to headquarters at the Delaware Academy of Medicine.

NEW TREATMENT OF TETANUS

A method of treating tetanus or lockjaw which resulted in a reduction of a gross death rate of 56.5 per cent among their patients in past years to a current rate of 29 per cent is described in *The Journal of the American Medical Association* for April 12 by Albert G. Bower, M. D., and the late Hyman L. Vener, M. D., Los Angeles. If the 12 patients dying during the first 24 hours of hospitalization are excluded from 100 patients treated by their new method, the net death rate among 88 patients was 19.3 per cent, the two men say.

"The death rate cited by various authors in cases of tetanus has usually varied from 50 to 70 per cent, or occasionally even higher," the authors say. "In a previous report our experience indicated that regardless of age, sex, incubation period (the time between the implanting of an infectious disease and the first manifestation of symptoms), site or type of injury and provided that each patient received an initial therapeutic dose of 100,000 units of antitoxin and a total dose

under 200,000 units the death rate remained approximately 50 per cent.

"The prime object in the management of tetanus is to administer a minimum dose of 200,000 units of antitoxin in a definite period of twenty-four to thirty-six hours. Thereafter we refrain from disturbing the patient for a period of ten days to two weeks except for giving 1,500 units every four days in order to maintain desensitization until complete recovery or death occurs. In 72 instances in which patients received 200,000 or more units of antitoxin (none receiving more than 230,000) only 7 deaths occurred, the mortality rate being 9.7 per cent. After this dose no additional large doses of serum are administered unless they are absolutely indicated or the case is exceptional.

"Approximately 50 per cent of the patients were admitted with a history of symptoms for three days or longer and frequently in severe convulsions.

"Each patient with tetanus represents a surgical emergency. Regardless of the mildness of symptoms, immediate action is taken."

The method of treatment during the first 36 hours as reported by the two doctors follows a very definite schedule particularly as relates to the time for administration of the antitoxin. Within thirty minutes after the admission of the patient they administer chloral hydrate, a sleep producing drug. About an hour later 20,000 units of antitoxin is injected completely around the wound. From forty-five to sixty minutes later the wound is opened and all foreign material removed. The area is treated subsequently as though it were infected. In some instances, they say, if a finger or toe is involved, it is amputated. Before any surgical intervention 60,000 units of antitoxin is injected deep into the muscle girdling the extremity of the part involved. Later 20,000 units of antitoxin previously warmed to body temperature is injected into the head of the spinal canal. Following this the temperature may become elevated within a few hours but it usually subsides from within eight to ten hours, they say. When it has receded to about 102 F., 40,000 units of antitoxin diluted in a solution of sodium chloride is injected into the vein. Two hours later the drug methena-

mine is given intravenously (by vein). "This drug constitutes an integral part of the management," the authors declare. Although the exact reasons for its use have not been determined they believe that its action allows greater permeability to the antitoxin. An hour later a second intravenous injection of 20,000 units of antitoxin is administered. Approximately twelve hours after the second intravenous dose the final 40,000 units of antitoxin is injected deep into the muscle. Methenamine is given intravenously ten to twelve hours after each injection of antitoxin into the muscle. Unless the patient has a relapse no additional large doses of antitoxin are given.

"Next in importance to antitoxin is good general nursing care," the two doctors say. "Common sense and a knowledge of the difficulties to be encountered must be appreciated by all nurses on the case. All unnecessary fussing with the patient must be avoided. Any hospital admitting many patients with tetanus during the year would do well to have nurses who have been trained in the management of the disease available for duty when the occasion demands it. Cessation of respiration (breathing) is not an indication for signing a patients' death certificate, for with competent medical and nursing management and immediate measures for resuscitation patients have revived and completely recovered."

Among other points in their program of general bedside management is the important one that patients should be kept in a quiet, semidark room. "A special effort should be made to avoid squeaky beds and doors, noisy elevators, bedside conversations, unnecessary examinations and hospital repairs in the vicinity of the patient's room," they declare. "These annoyances cause convulsions, are extremely harmful and must be reduced to a minimum. Cotton or plastic antinoise ear stoppers fitted into the auditory canals are of distinct value in decreasing extrinsic noises.

"Death in tetanus is not due to cardiac (heart) complication but usually to respiratory failure during a convulsion."

Regarding the factors involved in determining the possible outcome of tetanus the two authors say that the group on which they

base their report was comprised of 75 males and 25 females. Among the males the death rate was 21.3 per cent and among the females it was 52 per cent. "Apparently some factors still have to be solved concerning the cause of this high rate among females," they say. "However, until the number of females treated is greater the results cannot be fairly interpreted."

Their best results were obtained among children between the ages of 10 and 14 years, with a death rate of 6.2 per cent. The next best results were achieved among children between 5 and 9 years, with a death rate of 13.8 per cent. The general death rate of 50 per cent was not materially affected in patients under the age of 4 years or over the age of 40.

"A patient with an incubation period of six days or longer under this method of management has a 75 to 80 per cent chance of recovery, in contrast to the 50 per cent chance of those patients having a shorter incubation period," the two men declare.

The average hospital stay of a patient with uncomplicated tetanus is about three weeks, they report.

MICROFILM SERVICE

Recently there has been established in this Library with the approval of the Surgeon-General of the Army a microfilm copying service and a weekly Current List of Medical Literature prepared from the cards made for future issues of the Index Catalogue. These two projects are conducted under the auspices of a recently organized group of Friends of the Army Medical Library. Sample copies of the Current List and a pamphlet describing Microfilm Service are sent herewith.

The object of this undertaking is to place the resources of this Library at the disposal of those who are engaged in the advancement of medical research irrespective of where they live or work.

Undoubtedly there are many readers of journal who would be interested in learning of this service and it would be highly appreciated if you could assist us in making facts more widely known, through the columns of your journal. As Librarian of the Army Medical Library, I have a great interest in

the work the Friends of the Library are doing, and although I take no part in this officially, I have left no stone unturned to aid them in their work.

Sincerely yours,

HAROLD W. JONES,
Colonel, M. C., U. S. Army,
The Librarian.

[Ed. Note]. The charge is 30 cents for each complete article not exceeding 30 pages in length, and 10 cents for each succeeding 10 pages or fraction thereof.

AMERICAN ACADEMY OF PHYSICAL MEDICINE

The American Academy of Physical Medicine will hold its Nineteenth Annual Meeting and Scientific Session on April 28, 29, 30, 1941, in New York, with headquarters at the Hotel Pennsylvania, where lectures, symposia, clinical papers, motion pictures and the exhibits will be presented. Clinics will be held at the Medical Center, New York Orthopaedic Hospital, Post Graduate Hospital, and the Skin and Cancer Hospital. There will be an evening session at the Academy of Medicine Building and a banquet at the Hotel Pennsylvania.

Physical medicine in relation to general medicine and the specialties will be the underlying theme of the topics under discussion. These include new developments in electrotherapy, electrosurgery, radiation therapy, hydrology, physical education, military medicine, Aviation Medicine, and laboratory reports on related investigation.

The sessions are under the direction of Harold D. Corbusier, M. D., Plainfield, N. J., president; Herman A. Osgood, M. D., Boston, secretary; Fred H. Albee, M. D., New York, chairman of the committee on arrangements; William D. McFee, M. D., Boston, chairman of the committee on program; William Benham Snow, M. D., New York, chairman of the committee on clinics, and Franklin P. Lowry, M. D., Newton, Mass., chairman of the committee on exhibits.

All members of the medical profession and those of related interests are invited to attend the scientific program. There will be no registration fee. Address inquiries to Herman A. Osgood, M. D., Secretary, 144 Commonwealth Avenue, Boston, Massachusetts.

1789—MEDICAL SOCIETY OF DELAWARE—1941

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Audits Committee: W. W. Lattomus, Alex Smith, D. D. Burch.

Public Relations Committee: L. B. Flinn, J. J. Hynes, Grace Swinburne, E. G. Laird.

Medical Economics Committee: W. E. Bird, W. S. Lumley, L. J. Rigney, Ira Burns, A. J. Strikol.

KENT COUNTY MEDICAL SOCIETY—1941

Meets First Wednesday

J. B. BAKER, President, Milford.
 I. W. MAYERBERG, Vice-President, Dover.
 B. F. BURTON, Jr., Secretary-Treasurer, Dover.
 Delegates: A. V. Gilliland, J. R. Beck, H. V. P. Wilson.
 Alternates: C. J. Prickett, S. M. D. Marshall, L. L. Fitchett.
 Censors: S. M. D. Marshall, R. W. Comegys, Wm. Marshall Jr.

DELAWARE ACADEMY OF MEDICINE—1941

Open 10 A. M. to 5 P. M. and Meeting Evenings
 W. H. KRAEMER, President.
 F. R. MILLER, First Vice-President.
 G. W. K. FORREST, Second Vice-President.
 D. T. DAVIDSON, Sr., Secretary.
 N. L. CUTLER, Treasurer.
 Board of Directors: H. F. du Pont, Mrs. Ernest du Pont, L. B. Flinn, S. D. Townsend, C. M. A. Stine, J. K. Garrigues, W. S. Carpenter, Jr., F. A. Wardenberg.

DELAWARE PHARMACEUTICAL SOCIETY—1941

ALBERT DOUGHERTY and HARRY S. KIGER, Honorary Presidents, Wilmington.
 WILLIAM F. LONGENDYKE, President, Seaford.
 HUGHETT K. MCDANIEL, First Vice President, Dover.
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ALBERT BUNIN, Secretary, Wilmington.
 ALBERT DOUGHERTY, Treasurer, Wilmington.

Board of Directors: W. F. Longendyke, Seaford; W. E. Brown, Wilmington; H. P. Jones, Smyrna; G. W. Brittingham, Wilmington; A. H. Morris, Lewes.

Legislative Committee: Thomas Donaldson, Chairman, Wilmington.

SUSSEX COUNTY MEDICAL SOCIETY—1941

Meets Second Thursday

CARLETON C. FOOKS, President, Frankford.
 N. R. WASHBURN, Vice-President, Milford.
 F. I. HUDSON, Secretary-Treasurer, Rehoboth.
 Censors: H. E. LeCates, Delmar; O. V. James, Milford; James Beebe, Lewes.
 Program Committee: J. L. Fox, Seaford; S. M. Berger, Selbyville; N. R. Washburn, Milford.

DELAWARE STATE BOARD OF HEALTH—1941

Stanley Worden, M. D., President, Dover; Mrs. Charles Warner, Vice-President, Wilmington; Bruce Barnes, M. D., Secretary, Seaford; W. H. Speer, M. D., Wilmington; Dr. J. D. Niles, Townsend, Del.; J. F. Maguire, D. D. S., Wilmington; Mrs. Elizabeth H. Martin, Lewes; Mrs. Caroline Hughes, Middletown; Edwin Cameron, M. D., Exec. Secy., Dover.

DELAWARE STATE DENTAL SOCIETY—1941

ABRAHAM GOERMAN, President, Wilmington.
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MEDICAL COUNCIL OF DELAWARE

Hon. Daniel J. Layton, President; J. S. McDaniel, M. D.; W. W. Johnson, M. D.

BOARD OF EXAMINERS, MEDICAL SOCIETY OF DELAWARE

J. S. McDaniel, President and Secretary; Wm. Marshall, Assistant Secretary; W. E. Bird, P. R. Smith, W. T. Chipman.

BOOK REVIEWS

Born That Way. By Earl R. Carlson, M. D. Pp. 174. Cloth. Price, \$1.75. New York: John Day Company, 1941.

Medical autobiographies seem to be the order of the day, what with Young, Finney, Hertzler, et al, to wit. This one is a bit different, though just as entertaining. It aims at a lay rather than a professional audience. It is the story of the son of a Swedish immigrant who was severely injured at birth, but whose ambition was to become a physician! This goal he reached at Yale in 1931, at the age of 34.

This story of a suffering being, with its humor and its pathos, its sound advice and its pithy preachments, should be an inspiration to all who have severe physical handicaps to overcome, as well as to those who suffer mentally from an inferiority complex. The story is well written, and should reach a wide circle of readers.

Smoke Screen. By Samuel B. Pettengill, former member of Congress (Indiana). Pp. 126. Cloth. Price, \$1.00. New York: America's Future, Inc., 1940.

The purpose of Congressman Pettengill's book is to demonstrate that we are moving *towards* National Socialism, and that from now on we should move *away* from it. It is not intended as a partisan discussion, and is political only in the sense that the American Constitution is political. The book states facts and figures plainly; the logic is sweeping; and the conclusions definite. With socialized medicine in the air again (or still), this is the book for the doctor to read. Then he will be ready for any discussion or query that may come from his patients, and if sufficient real information reaches the public on this issue their collective voice will rout the specter of any type of socialization, be it medical, legal, educational, theological, or industrial.

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I. Knight, F., and Shelanski, H. A., "Treatment of Acute Anterior Urethritis with Silver Picrate," *Am. J. Syph. Gen. & Ven. Dis.*, 23, 201 (March) 1939.

*Silver Picrate, is a definite crystalline compound of silver and picric acid. It is available in the form of crystals and soluble titration for the preparation of solutions, suppositories, water-soluble jelly, and powder for vaginal insufflation.

